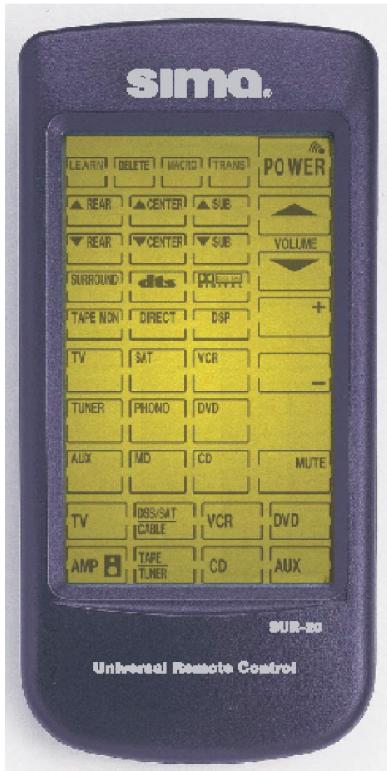


simax®

SUR-20

Learning Universal Remote

With LCD touch screen



User Manual

Preface

About this manual

This manual is designed to make using the SUR-20 Smart Remote Control as easy as possible. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice.

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Chapter 1

Introducing the SUR-20

Congratulations on your purchase of the Sima SUR-20 Universal Remote Control. The SUR-20 is a digital universal remote control that is easy to use, enabling you to control all of your electronic devices equipped with an infra-red (IR) remote.

The SUR-20 uses a touch screen control panel, which changes its display when you select a different device. The touch screen eliminates the need for dozens of buttons. It's easy to find the functions you want. Simply select a device and the appropriate screen appears. You can control up to eight devices, including VCRs, DVDs, TVs, and satellite dishes.

The SUR-20 is easy to set up. You can quickly configure each device in your household or office using the "learning eye". In addition, the advanced macro function enables you to initiate a chain of up to 25 commands with the touch of a single button.

Convenient and easy to use, the SUR-20 provides you with a central control solution.

Note:

This manual will help you learn how to use all the advanced features of the SUR-20. It will not explain how to use the functions for your devices. Please refer to your device's user manual for information related to your device.

Unpacking the SUR-20

After you have unpacked the SUR-20, check the contents to make sure the following items are included.

- SUR-20
- This User's Manual

If any of the above items are missing or appear damaged, contact your dealer immediately. Do not throw the shipping carton away in case you need to ship your SUR-20.

SUR-20 features

The following list identifies the SUR-20's key features. For more information on getting the most from these features, refer to Chapters 2 and 3.

- Large touch screen display with automatic backlighting for visibility in dim lighting.
- Macro sequence function—each macro can store 25 commands.
- Controls up to eight devices including DVD, TV, Satellite, VCR and CD.
- Learns the IR codes from your existing remote controls to quickly set up devices.
- Adjustable backlight with four levels of ambient light sensitivity.
- Pre-programmed manufacturer's codes for many models.

Identifying components

Please refer to the following illustrations to identify the features of the SUR-20. This section provides an overview of the SUR-20's features and controls. Refer to Chapters 3-8 for detailed descriptions on using the LCD panel and controls.

Infra-red Eye

Point the infra-red eye at the device you want to operate.

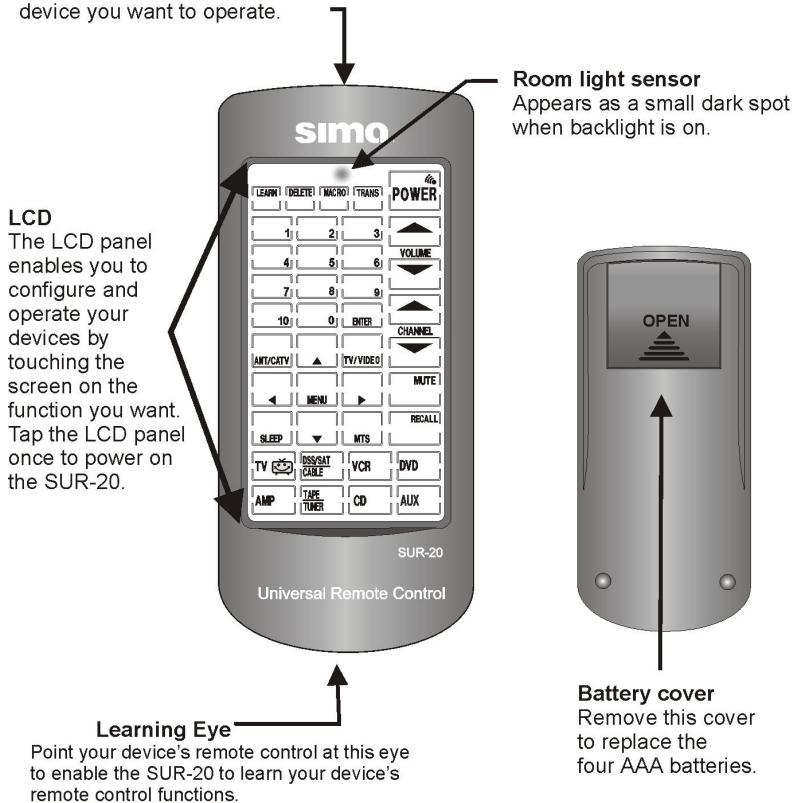


Figure 1-1: Front and rear view

Chapter 2

Getting Started

This chapter will guide you through the steps for inserting the batteries and using the many features.

Batteries

The SUR-20 operates on four AAA batteries (not included). Batteries must be inserted before you can operate the SUR-20. To insert the batteries, refer to the following illustration:

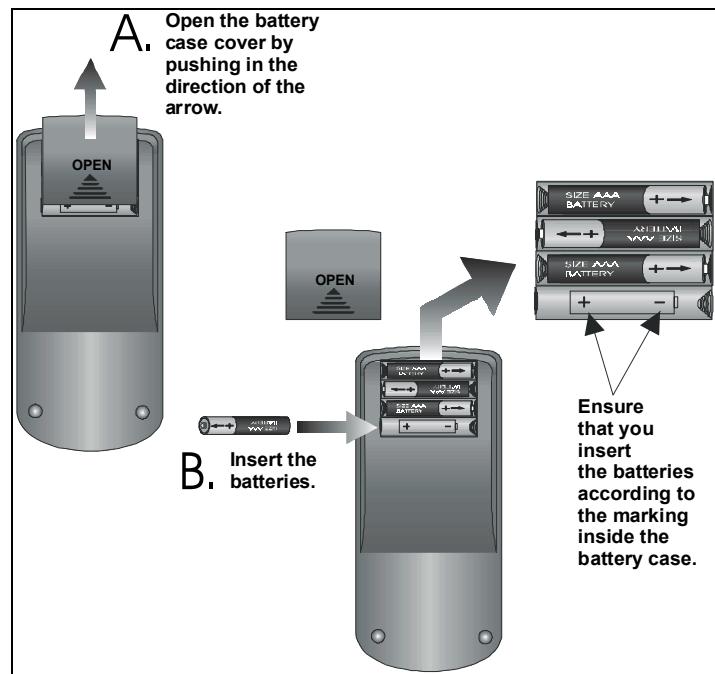


Figure 2-1: Inserting the batteries

Battery low icon

When the batteries are low, the battery low icon will be displayed next to the power button:

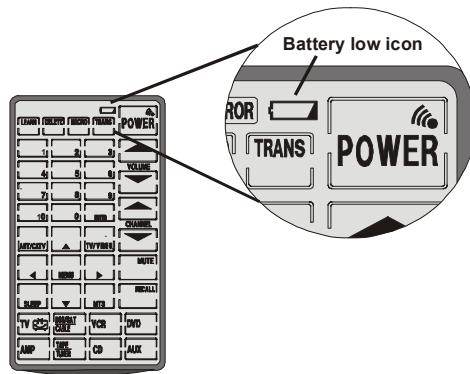


Figure 2-2: The battery low icon

You should replace the batteries with new ones immediately.

Battery tips and precautions

- Always use fresh batteries. Alkaline batteries recommended. Do not mix different types of batteries.
- Be sure that the positive (+) and negative (-) polarities of the batteries match the diagram shown in the compartment.
- Do not expose the batteries to excessive heat or flame.
- Keep batteries out of the reach of children.
- Weak batteries reduce the effective distance of the unit.
- Replace the batteries immediately when the battery low-power warning icon  appears in the information screen.
- To reduce danger of leakage and damage, remove used batteries when used longer than two years.
- The SUR-20 will not lose programmed data when batteries are replaced

The LCD (Liquid Crystal Display)

Turning the LCD on.

Using the LCD touch screen is easy. **Simply touch the screen to activate it.** The touch screen reduces the number of buttons by changing its configuration for each device selected. In this way, the touch screen can provide a total of 224 buttons (8 devices x 28 buttons each).

It will turn itself off about 20 minutes after the last use.

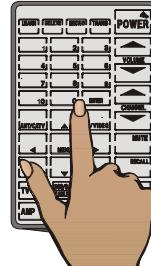


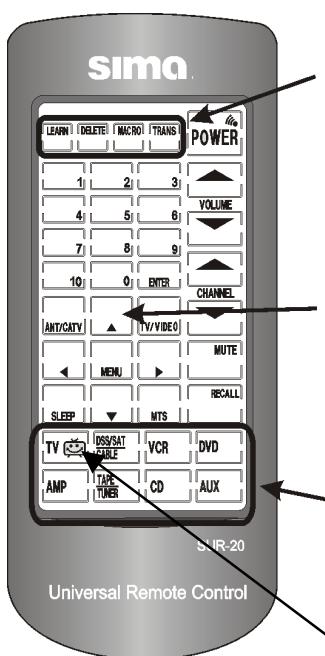
Figure 2-3: Turning the LCD on

Touch screen precautions - Please read the following instructions carefully:

- Tap the LCD touch screen gently; never use force.
- Do not use a pen or any sharp object to tap the screen. You might damage the surface.
- Keep the touch screen dry. Wipe off any spills immediately. The SUR-20 is not waterproof; never immerse it in liquid.
- Don't expose the SUR-20 to extreme temperatures. Keep it away from heat sources.
- Avoid dropping the SUR-20.
- Don't drop anything on the touch screen.
- Clean the LCD touch screen with a soft cloth. If needed, dampen the cloth slightly before cleaning. Never use abrasives or cleaning solutions.

SUR-20 touch screen buttons

The touch screen buttons enable you to operate the SUR-20. Use these buttons to program codes from your existing remotes, control your devices and set up command sequences called macros. You will hear a beep when you press a button. To activate or deactivate the beep, press any device button twice. (For more info see Chpt. 8) The SUR-20 will turn itself off 20 minutes after the last use.



Special function keys

LEARN - DELETE - MACRO -TRANS:
These four buttons activate program modes that enable the SUR-20 to perform advanced functions.

TRANS button used only with optional link cable - see Appendix A.

Control buttons:

After programming, these buttons operate devices in your home. The LCD shows a different set of control buttons for each device. These buttons control functions such as: volume, play, power off/on and more for your VCRs, DVDs, TVs, etc... *

Device buttons:

These eight buttons select the device you want to use. After pressing a device button, a corresponding set of control buttons will appear. An icon indicates which device is active. In the figure at left, TV is selected.

*** Note:** To prevent accidental activation, the record button has a three second safety delay. To instruct any device to record, you must press and hold the REC button for three seconds.

Chapter 3

Operating the SUR-20

Overview: This chapter will tell you how to set up the SUR-20 LCD display. Read the following chapters to:

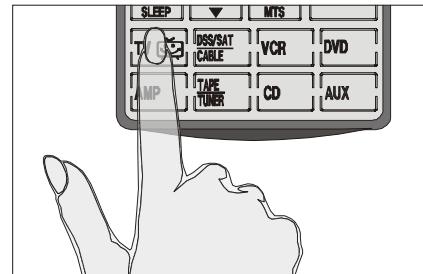
- Edit the LCD layout to match your devices (Chpt. 3)
- Teach existing remote controls to the SUR-20 (Chpt. 4)
- Access pre-programmed manufacturers codes in the SUR-20, for lost remotes. (Chpt. 5)
- Set up a macro sequence of commands (Chpt. 7)

Changing the LCD layout

The layout edit mode enables you to customize the SUR-20's display to match your existing remote controls. Use the following steps to make the display on the SUR-20 correspond to an existing remote.

Select the device you want to use.

Press that device screen button and hold for three seconds.

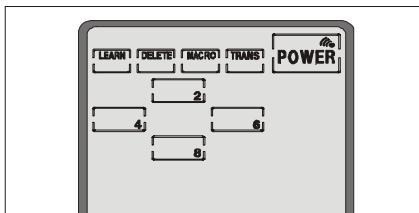


Chapter 3 —Changing the LCD Layout

You will hear a beep and see the *password screen* to the right.

Note: This screen prevents you from accidentally modifying your SUR-20.

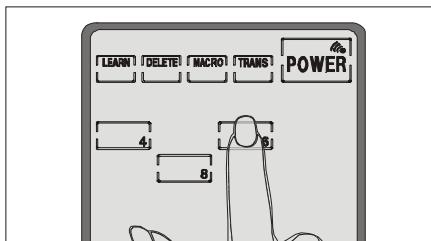
TIP: To exit the *password screen*, touch any other button once. The SUR-20 will return to its normal operation screen in 15 sec. if left untouched.



Press each number button (2, 4, 6, 8) until it disappears.

The LCD display will begin flashing.

Tap the screen once.

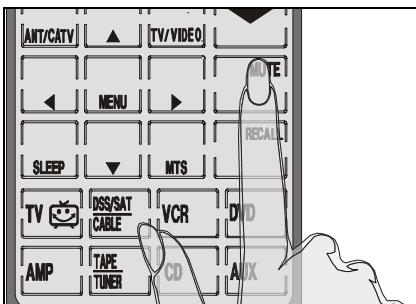


The display will stop flashing. (If a button disappears where you tapped, tap again and it will re-appear.)

You are now ready to change the layout of the SUR-20 to match your remote.

Select the button whose configuration you want to change.

Press once to delete it.

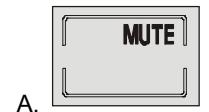


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Press the button again to scroll through other functions that can be assigned to that button.

In the example at right, successive taps on the "Mute" button in the TV device screen shown in fig. A will:

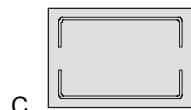
Remove it. (Fig. B)



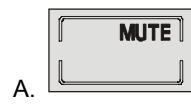
Change it to a generic button to perform any function. (Fig. C)

Tip: Use generic buttons to represent buttons the SUR-20 does not have.

Change to "Play"
(Fig. D)



Return to its original function. (Fig. A)



Tip: Press and hold the power button while in layout edit mode to see all of the available icons for each button simultaneously.

When you have finished making changes, **press the device screen button again**. You will hear three beeps and the SUR-20 returns to its normal operational mode.

The AUX device button

The AUX device button is equipped with a special feature that no other button has. The control buttons on the AUX device screen can easily be made identical to the control buttons on any other device screen. You can use it to operate a second TV, VCR, etc. In order to re-configure the AUX device screen in this way:

1. **Press AUX button for three seconds.**
2. **Press each number button until it disappears.**
3. **Tap screen once.**
4. **Then press any of the device buttons.** The selected device layout is copied to the AUX button.
5. **Press the AUX button again.** You will hear three beeps and the SUR-20 returns to its normal operating mode.

The Learning function

Overview: In this chapter you will learn how to teach the SUR-20 codes used by your other remote controls. The SUR-20 has the ability to learn how to operate any infra-red controlled device.

Before you use the learning function

Before you start using the SUR-20's learning function, please heed the following precautions:

- Teach only one remote for each device screen. For example, don't assign some of the buttons on the TV device screen to operate a TV in the living room, while assigning others to operate a different TV in the bedroom. **Tip:** the AUX device screen can be used to duplicate any other device screen (see AUX device button -Chpt. 3).
- To change from a device that has already been programmed, delete all of the commands for the first device before teaching new ones. For example, to operate the living room TV instead of the bedroom TV, delete all commands for the bedroom TV first. (See *Using the delete function* in Chpt. 6.) Then re-configure the TV device screen for the living room TV. (See *Using the Learn function* - Chpt. 4)
- When using the *learning function*, you must press each button within 2 minutes of pressing the last button. Otherwise, the SUR-20 will exit the learning mode and return to its normal operation mode.

Using the learning function

To teach the codes from your remote, set both remotes on a flat surface facing each other. Be sure to point your device's remote control at the SUR-20's *learning eye*, which is located at the bottom of the unit. Do not use the other eye located at the top of the SUR-20. You do not have to turn on the actual device (TV, VCR etc...). Refer to the following illustration:

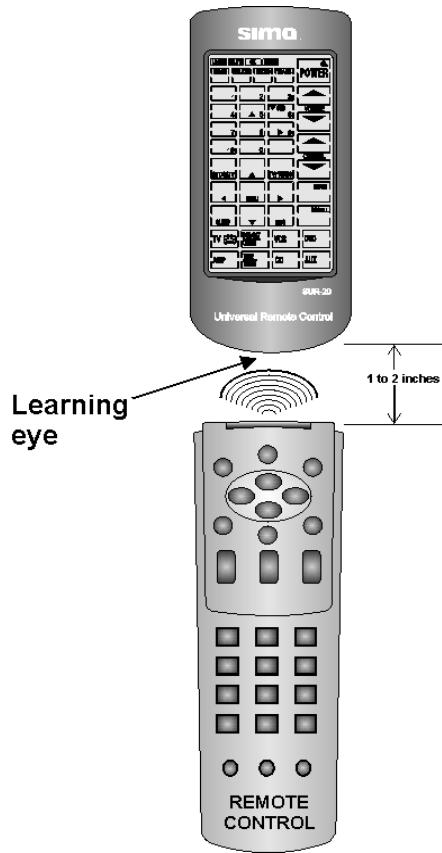
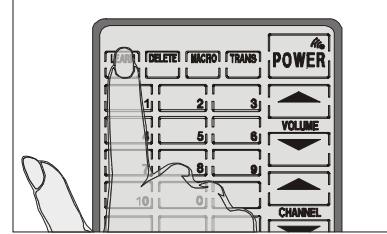


Figure 3-1: Using the learning eye

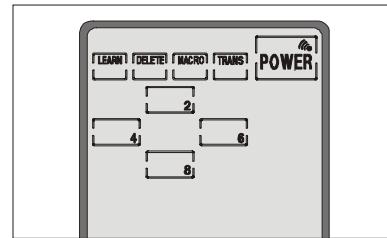
- . Follow these instructions:

Press the LEARN button for three seconds.

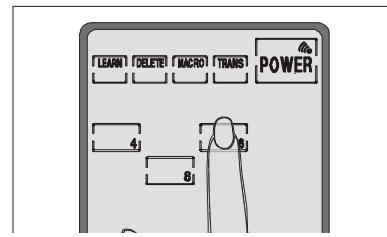


You will hear a beep and then see the *password screen* to the right.

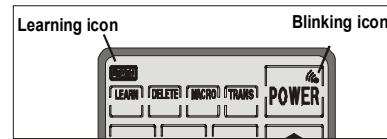
Note: This screen prevents you from accidentally modifying the SUR-20.



Press each number button until it disappears.

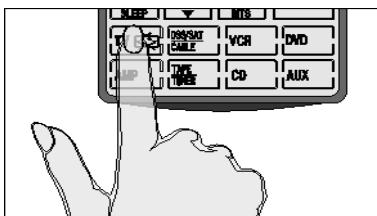


The touch screen appears again, with the **LEARN** icon appearing above the LEARN button. The power button icon is blinking, awaiting a signal from your device's remote control.



Select the device you want to operate.

Press that device screen button.

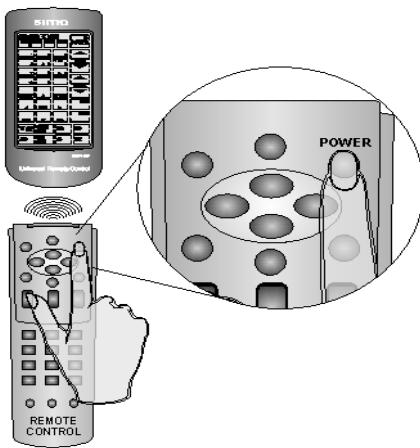


TIP: You can exit this operation by pressing the LEARN key at any time.

Line up your remote control and the SUR-20 learning eye, according to the diagram at right.

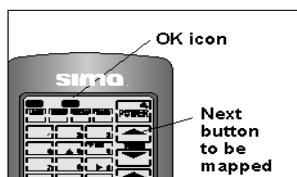
The SUR-20 is now ready to learn your remote controls buttons. The power button is the first button to be assigned.

While pointing your device's remote control at the SUR-20's learning eye, **press the device's power button.**



When you hear a beep and see the  icon, release the button. The power button has been assigned. The next button to be assigned will start blinking on the touch screen.

Continue to press the buttons on your device's remote control, which correspond to the blinking buttons on the SUR-20's touch screen.

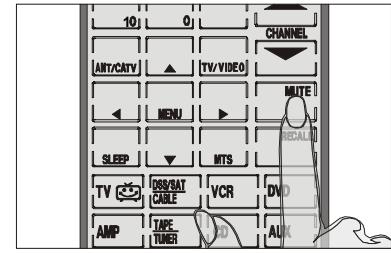


You can change the order of assigning buttons by pressing any button on the SUR-20's LCD touch screen display panel...

... and then pressing the corresponding button on your device's remote control.

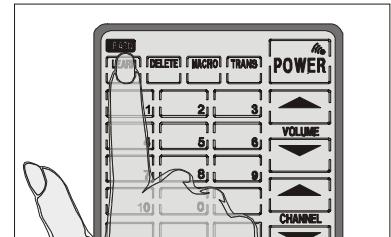
To customize the SUR-20 device screen buttons to match your remote control's, (see *Changing the LCD Layout* in Chpt. 3).

To teach another remote control while in this mode, select a different device screen and repeat the steps in the learning sequence.



When you are done assigning the buttons for the devices you desire, **press the learn button to complete the learning mode.**

You will hear three beeps and exit the learning mode.



Note: If you see an "error" message when assigning a button, refer to the troubleshooting section in Appendix B

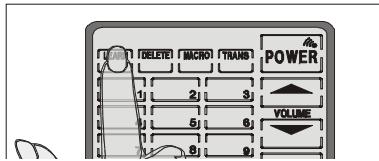
Chapter 5

Loading pre-programmed codes

The SUR-20 is pre-programmed with many manufacturers' codes to operate a wide range of TVs, VCRs, DVDs etc... These are useful if you have lost the original remote. However, because of the great variety and number of remotes on the market, not all functions may work when using the pre-programmed codes. If you have the original remote, it is recommended you teach the SUR-20 the functions most important to you (Ch. 4). You can directly access the manufacturer's code for your device by following the steps below.

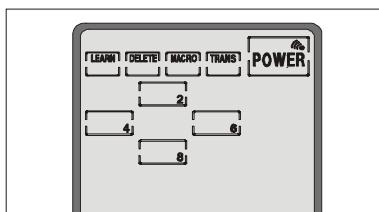
Note: some codes are designed to operate more than one model. It may take several tries to find the code that works with your unit.

Press the LEARN button for three seconds.

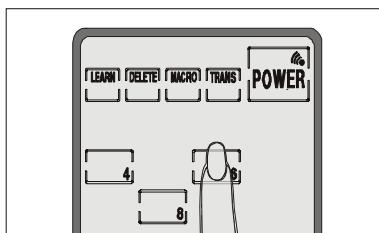


You will hear two beeps and then see the *password screen* to the right.

Note: This screen prevents you from accidentally modifying the SUR-20.

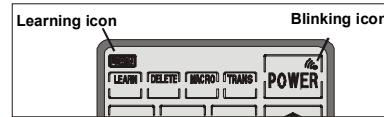


Press each number button until it disappears.



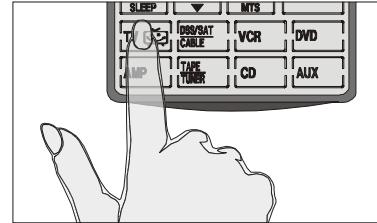
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The device screen appears again, with the **LEARN** icon above the LEARN button. The POWER button icon is blinking, to wait for a signal from your device's remote control.



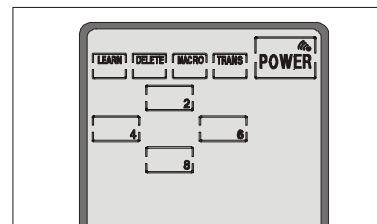
Select the device button for which you want to load a manufacturer's code.

Press and hold for 5 seconds.

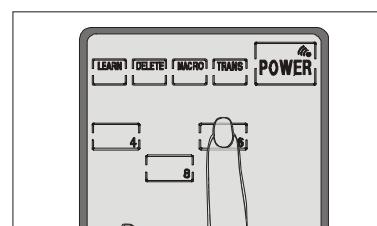


You will hear a beep and then see the *password screen* shown in the right diagram again.

Note: This screen prevents you from accidentally modifying the SUR-20..



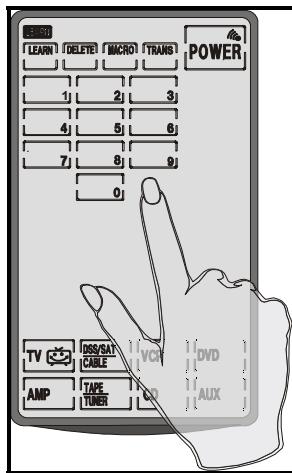
Press each number button until it disappears.



Chapter 5 - Loading Pre-programmed Codes

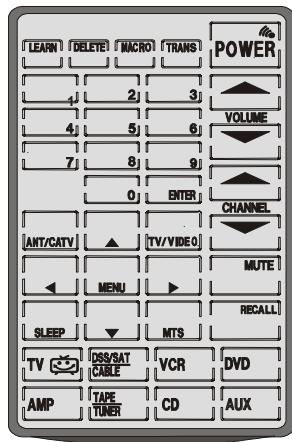
You will hear 2 beeps and then see the *digital pad* screen shown in diagram at right.

Enter a number from the manufacturers' code table that you think will operate your device. Manufacturer code tables are found on pages 20 - 25.



After entering the code, you will hear 3 beeps immediately, then see a set of control buttons corresponding to the manufacturer's device you have selected.

If these controls do not work, you may have to enter another code from the code table. Some manufacturers have several codes for their products. Repeat the previous steps using another code number.



Manufacturers' Codes Table 1 – Televisions

Vendor	Code	Vendor	Code
Admiral	12, 13	Daytron	08
Aiko	07	Dimensia	11, 13
Alleron	05	Dumont	08
Akai	15	Dynasty	16
Amtron	20	Elektra	12
Anam National	16, 18, 20	Electroband	01, 15
AOC	01, 02, 08	Electrohome	08, 18
Audiovox	20	Emerson	01, 05, 08, 16, 20
Belcor	08	Envision	08
Bell & Howell	11, 12	Fisher	19
Bradford	20	Fujitsu	05
Brokwood	08	Funai	05, 16, 20
Candle	06, 08	FutureTech	16, 20
Celebrity	15	General Electric	03, 08, 11, 13, 14, 18
Centurion	08	Gibraltar	08
Centronic	16	Goldstar	02, 08
Citizen	04, 06, 07, 08, 12, 16, 20	Grundy	05, 20
Clairtone	01	Hallmark	08
Classic	16	Harvard	20
Colortyme	08	Hitachi	08, 12, 19, 22
Concerto	08	IMA	20
Contec/Cony	01, 16, 19, 20	Infinity	17
Craig	16, 20	JBL	17
Crown	16, 20	JCB	15
Curtis Mathis	04, 08, 11, 12, 13	JC Penny	02, 03, 04, 06, 08, 11, 13, 14
CXC	16, 20	Jensen	08
Daewoo	02, 07, 08, 16, 21	JVC	03, 10, 19

Manufacturers' Codes Table 1 – Televisions (cont.)

Vendor	Code
Kawasho	08, 15
KEC	16
Kenwood	08
Kloss Novabeam	09
KTV	01, 16, 20
Lodgenet	11, 12
Loewe	17
Logik	11, 12
Luxman	08
LXI	08, 11, 13, 14, 17
Magnavox	06, 08, 10, 17
Majestic	11, 12
Marantz	08, 17
Matsui	17
Megatron	08
MEI	01
Memorex	05, 08, 11, 12
MGA	02, 05, 08
Midland	03, 14
Mitsubishi	02, 05, 08, 10
Montgomery Ward	11, 12
Motorola	18, 23
MTC	01, 02, 04, 08
Multitech	20
NAD	08
NEC	02, 08, 10, 18
Nikei	16

Vendor	Code
Nikko	07, 08
NTC	07
Onking	16
Onwa	16, 20
Optonica	23
Panasonic	03, 17, 18
Philco	02, 06, 08, 09, 17, 18
Philips	06, 08, 09, 10, 17, 18
Pilot	08
Pioneer	08
Portland	02, 07, 08
Price Club	04
Prism	03
Proscan	11, 13, 14
Proton	08
Pulser	08
Quasar	03, 18
Radio Shack/ Realistic	08, 11, 13, 16, 20
RCA	02, 08, 11, 13, 18, 21
Rhapsody	01
Samsung	02, 04, 08
Sampo	08
Sanyo	08, 19
Scotch	08
Scott	05, 08, 16, 20
Sears	04, 05, 08, 11, 13, 14, 19
Sharp	08, 23

Manufacturers' Codes Table 1 – Televisions (cont.)

Vendor	Code
Shogun	08
Signature	11, 12
Simpson	06
Sonic	01
Sony	15
Soundesign	05, 06, 08, 16, 20
SSS	08, 16, 20
Starlite	20
Supreme	15
Sylvania	06, 08, 09, 17
Symphonic	20
Tandy	23
Tatung	18
Vendor	Code
Technics	03
Technwood	03, 08
Teknika	02, 04, 05, 06, 07, 08, 11, 12, 16, 19, 20
Telerent	11, 12
Tera	08
TMK	08
Toshiba	04, 10, 19
Vidtech	02, 08
Wards	02, 05, 08, 11, 12, 13, 17
Yamaha	02, 08
Yupiteru	16
Zenith	07, 08, 11, 12

Manufacturers' Codes Table 2 – Cable Boxes

Vendor	Sima Code
ABC	39
Archer	38, 40
Century	40
Citizen	40
Garrard	40
GC Electronics	38
General Instrument	39
Jasco	40
Vendor	Sima Code
Jerrold	39
Philips	40
Realistic	38
Scientific Atlanta	38
Starcom	39
Unika	38, 40
Universal	38, 40

Manufacturers' Code Table 3- VCRs

Chapter 5 - Loading Pre-programmed Codes

Vendor	Code
Admiral	31
Adventura	27, 33
Aiwa	27, 33
American High	30, 32
Asha	35
Audio Dynamics	28
Audiovox	25
Beaumark	35
Calix	25
Candle	25, 26, 28, 35
Canon	30, 32
Citizen	25, 26, 28, 35
Colortyme	28
Craig	25, 35
Curtis Mathes	28, 30, 32, 33
Cybernex	35
Daewoo	26, 27
DBX	28, 36
Dyntech	27, 33
Electrohome	25
Electrophonic	25
Emerson	25, 26, 27, 30, 32, 33
Fisher	28, 34
Fuji	32
Funai	27, 33
Garrard	27
General Electric	30, 32, 35

Vendor	Code
Goldstar	25, 28
Gardiente	27
Harley Davidson	27
Harman Kardon	28
Hitachi	33
Instant Replay	30, 32
Inteq	25
JCL	30, 32
JC Penney	25, 28, 30, 36
JVC	28, 36
Kenwood	28, 36
Kodack	25, 30, 32
Lloyd	33
LXI	25
Magnavox	30, 32, 34
Magnin	35
Marantz	28, 30, 34, 36
Marta	25
Masushita	30, 32
MEI	30, 32
Memorex	25, 27, 30, 31, 32, 33, 35
MGN Technology	35
Mitsubishi	36
Montgomery Ward	31
Motorola	30, 31, 32
MTC	27, 33, 35
Multitech	27, 33, 35

Manufacturers' Code Table 3- VCRs (cont.)

Vendor	Code
NEC	28, 36
Nikko	25
Noblex	35
Olympus	30, 32
Optimus	25, 31
Panasonic	30, 32
Pentex Research	28
Philco	30, 32
Philips	30, 32, 34
Pilot	25
Pioneer	36
Quasar	32
RCA	30, 32, 35
Radio Shack/Realistic	25, 27, 30, 31, 32, 33, 35
Radix	25
Randex	25
Samsung	26, 35
Sankyo	31
Sansui	36
Sanyo	35
Scott	26
Sears	25, 30, 32, 34
Sharp	31, 33
Shogun	35
Signature	33
Singer	30, 32
Sony	29
STS	30, 32
Sylvania	27, 30, 33, 34
Symphonic	27, 33
Tandy	33
Tashiko	25
Teac	25, 33
Technics	30, 32
Teknika	25, 27, 30, 32, 33
Toshiba	26, 34
Totemvision	25, 35
TMK	35
Unitech	35
Vector Research	26, 28, 36
Victor	36
Video Concepts	26, 28, 36
Video Sonic	35
Wards	25, 26, 29, 30, 31, 33, 35
White West	33
XR-1000	27, 30, 32
Yahama	28, 36
Zenith	25, 36

Manufacturers' Codes Table 4 – Satellite Dishes

Vendor	Sima Code
Dish Network	42
Drake	41
Echoshere	42
Echostar	42
General Electric	43

Vendor	Sima Code
Proscan	43
RCA DBS	43
Sony	44
Video Cypher	41
Zenith	41

Manufacturers' Codes Table 5 - DVDs

Vendor	Sima Code
Denon	45
Hitachi	46
Magnavox	47, 48
Marantz	47
Panasonic	45

Vendor	Sima Code
Philips	47, 48
Pioneer	46
Toshiba	47
Yamaha	45

Vendor	Sima Code
Sima SVS-4	49

For easy reference, write down the manufacturers' codes you have chosen below.

TV DVD CABLE CD

VCR SAT AUX STEREO

Chapter 6

Using the delete function

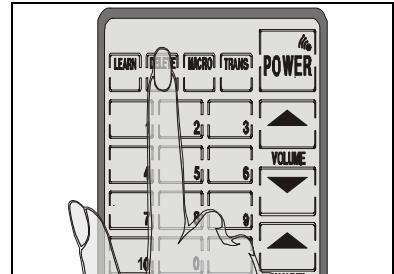
The DELETE function enables you to:

1. erase the commands for selected buttons for a device
2. erase commands for all buttons for a device
3. erase the commands for all devices

Delete device button

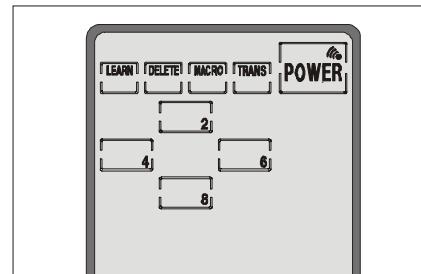
Follow these instructions to delete taught commands:

**Press the delete
button for three
seconds.**

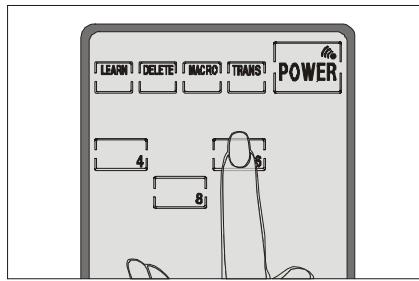


You will hear two
beeps and then see
the *password screen*
to the right.

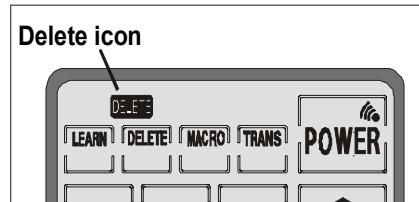
Note: This screen
prevents you from
accidentally modifying
your SUR-20.



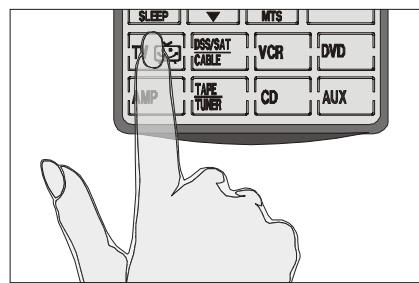
Press each number button until it disappears.



The touch screen appears again, with the **DELETE** icon above the **DELETE** button.

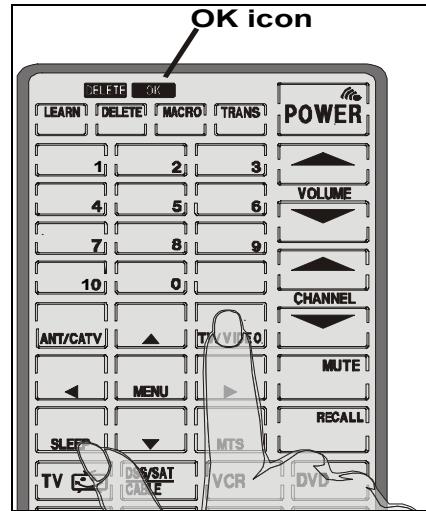


Press the device screen button to select the device for which you want to delete data.



Press the button whose data you want to delete. You will hear a beep and see the **OK** icon. The button's data has been deleted.

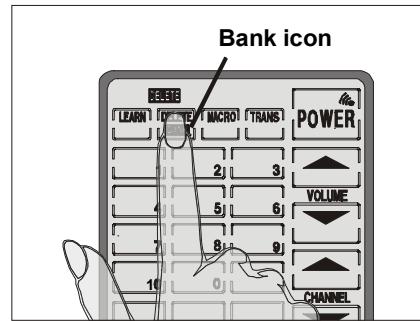
Note: Pressing the button deletes only the taught data; it does not remove the button. To learn how to remove buttons, refer to *Changing the LCD Layout* in Chpt. 3.



Continue pushing buttons whose data you want to delete.

When finished, **press the LEARN button to exit the delete function and return to normal operation.**

To delete the taught data for an entire device, press the **DELETE** button while in delete mode. The **BANK** icon appears under the **DELETE** button.

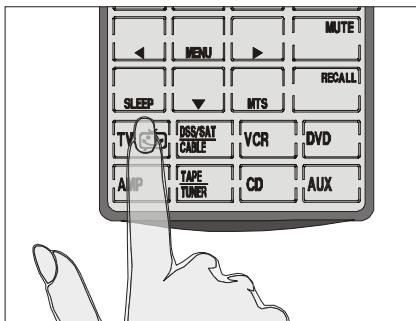


Press the device screen button to select the device whose data you want to delete.

You will hear two beeps and see the **OK** icon.

The taught data for the entire device has been erased.

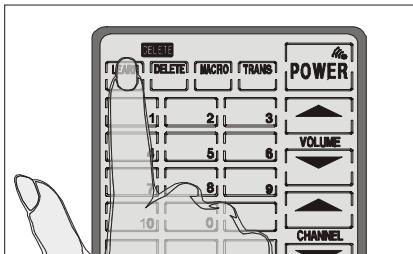
To exit the delete function, **press the LEARN button to return to normal operation.**



To delete the taught data for all of the devices at once, press the DELETE button for three seconds, while in the delete mode.

The display will flash and you will hear six beeps. Taught data for all devices has been erased.

When you have finished deleting data, **press the LEARN button to exit the DELETE function and return to normal operation.**



Chapter 7

Macro Function

A macro is simply a series of commands. The MACRO feature enables you to initiate a sequence of up to 25 commands with a single button. You can create a macro on any control button. *Remember, however, assigning a macro eliminates the button's original function.*

Macro example

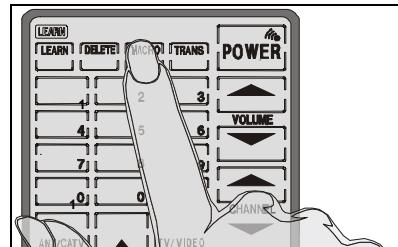
The following example will help you to better understand creating a macro sequence. It is provided to teach you how to record a macro. By no means is it the only macro sequence you can create. You can create macros using any sequence of commands you desire.

The following macro will:

1. Turn the TV on.
2. Switch the TV to video mode.
3. Turn the VCR on.
4. Create a two-second delay.
5. Instruct the VCR to play a tape.

Set up the macro using the following steps:

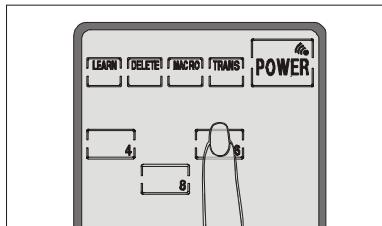
Press the MACRO button for three seconds to enter the password mode.



Chapter 7 – Macro Function

Press each number button until it disappears.

The **LEARN** icon will appear above the LEARN button.



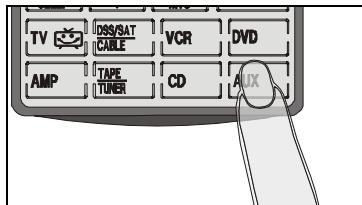
First, select a device screen.

For this example, we have chosen the AUX screen.

A. Press the AUX button.

B. Press 1.

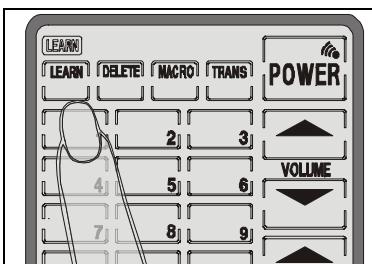
You will hear three beeps.



The 1 button in the AUX device screen will be used to start the macro in the normal operation mode.

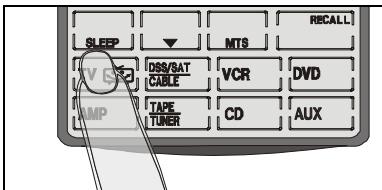
Note: The 1 button will no longer perform its original function.

Do not use one of the 8 device buttons to run your macro.



Press the TV button.

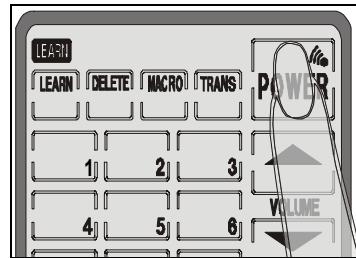
This will enable you to construct a series of commands for the operation of your TV.



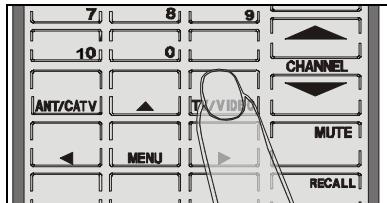
Note: Your TV, VCR,

etc... will not be activated as the macro commands are being entered. The macro only works when the SUR-20 is in its normal operational mode.

Press the power button. This will power the TV on when the macro is running.

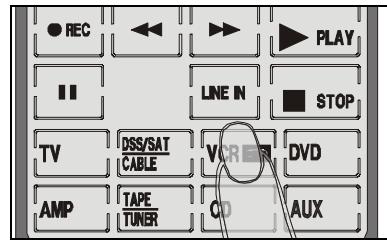


Press TV/Video. This command will switch the TV mode to Video mode so that you can watch the VCR tape.

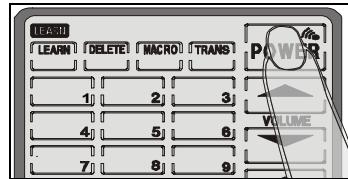


Press the VCR device screen button to switch to the VCR device menu.

This will enable you to construct a series of commands for the VCR.



Press the power button. This powers your VCR on while the macro is running.



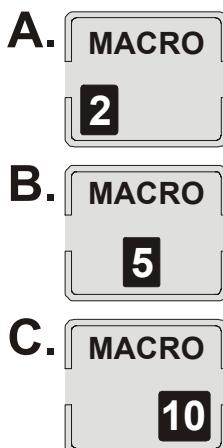
You may need to set a time delay between turning on the VCR

and sending the tape play command.

Push the MACRO button to scroll through the 3 options:
A = 2 sec. B = 5 sec.
and C = 10 sec.

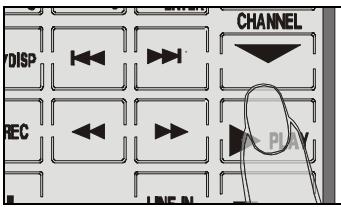
Select the 2-second delay (fig. A.).

Note: You can set a time delay between any two commands.



Press play. This command will start playing the tape in your VCR when the macro is running.

Press LEARN to exit the macro sequence.



You can create another macro at this time by selecting another macro-run button and entering another sequence of commands.

...or press LEARN again to exit the macro function.

Running the macro

To run the macro, press the AUX device button. Press the 1 button. **Be sure to aim the SUR-20 at the devices while the macro sequence is being sent.** The following macro will begin:

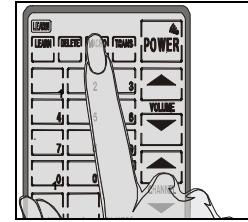
1. TV turns on	4. Two-second delay.
2. TV switches to video mode	5. VCR starts playing tape
3. VCR turns on	

To restore the AUX's 1 button to its original function delete the macro using the delete button function. Refer to *Using the delete function* in Chpt. 6.

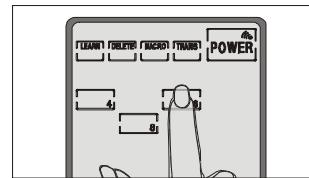
Quick start guide to setting up a Macro.

Follow these instructions to set up a macro:

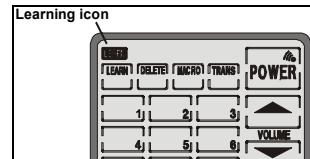
1. Press the macro button for three seconds.



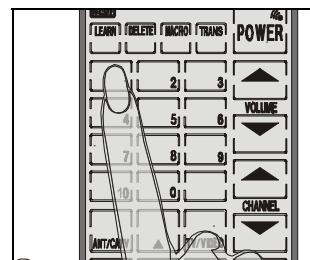
2. Press each number button until it disappears.



The **LEARN** icon appears above the learn button.



3. Select a device screen.

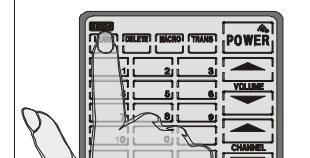


4. Select a control button to run the macro.

5. Input your macro sequence using up to 25 commands.

6. Press LEARN to complete the macro sequence.

You can teach another macro by going back to step 3 or...



7. Press LEARN again to exit macro function.

Chapter 8

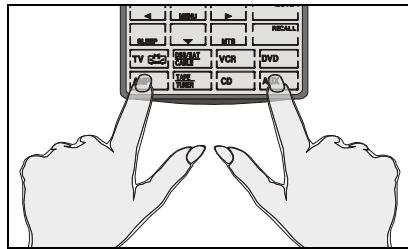
Overview: The following section will tell you how to:

- Adjust the sensitivity of the backlight.
- Turn off the beep signal.
- Recall the original LCD layout.

Adjusting the LCD backlight

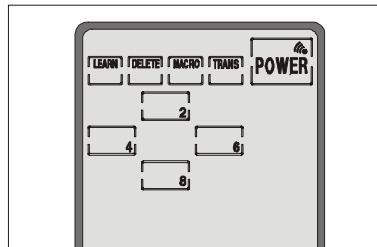
You can adjust the LCD backlight sensitivity and the length of time that the backlight stays on after you press the LCD panel. **Important Note:** *the room light sensor appears as a small dark spot located above the MACRO button at the top of the unit and it may be visible when the backlight is on. This is normal.* Refer to these instructions:

Press the AMP and the AUX buttons at the same time for three seconds to enter the LCD backlight configuration mode.

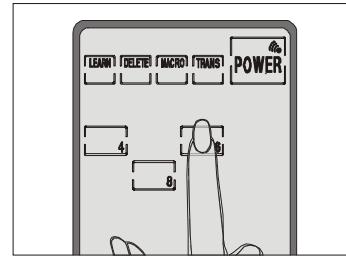


You will hear two beeps and then see the *password screen* to the right.

Note: This screen prevents you from accidentally modifying your SUR-20.

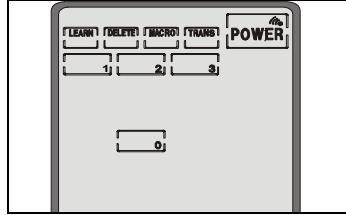


Press each number button until it disappears.



You will see the screen to the right. It enables you to set the length of time that the LCD backlight stays on after touching the LCD panel.

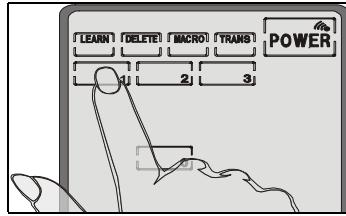
Two buttons showing the current setting will be flashing.



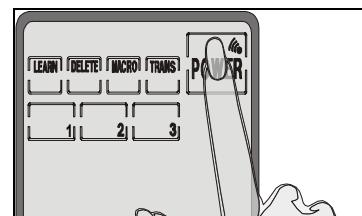
Press 1 to turn backlight on for 10 sec.

Press 2 to turn backlight on for 20 sec.

Press 3 to turn backlight on for 30 sec.



After you have made the adjustment, **press the power button to move to the next screen.**

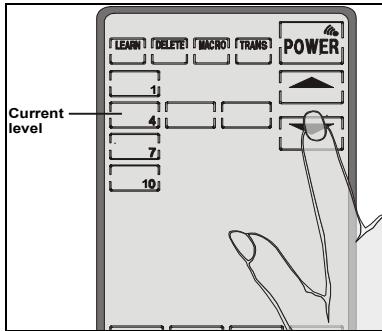


Chapter 8 – Special Features

The SUR-20 detects the level of ambient light and adjusts the backlight to respond according to the setting in this screen.

Press the up arrow key to increase the sensitivity of the backlight to the ambient lighting.

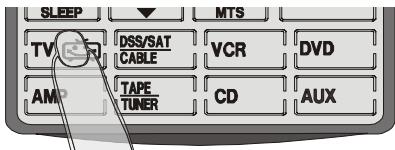
When set to 1, the backlight will automatically switch on in a normally lit room.



Press the down arrow key to decrease the sensitivity of the backlight to the ambient lighting.

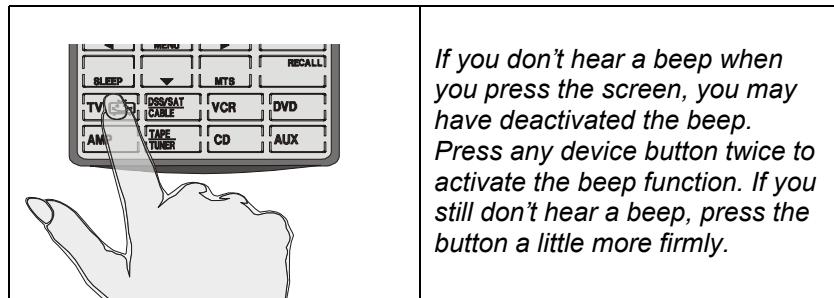
When set to 10, the backlight will automatically switch on only in a dark room.

When you have finished making your adjustment, **press any of the device buttons to exit.**

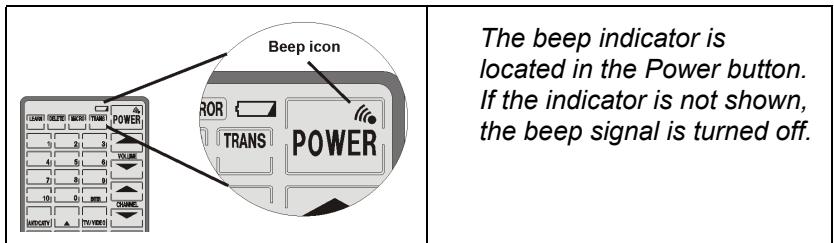


Turning off the beep signal

To turn off the beep signal, press any device button twice. To turn it back on press any other device button twice.



Turning on/off the beep signal



Finding the beep indicator

Recalling the original LCD layout

You can reset the LCD panel buttons to their original factory configuration. *Any configurations you have made will be lost.* To recall the original LCD layout, **press the TV and DVD device buttons at the same time for five seconds:**

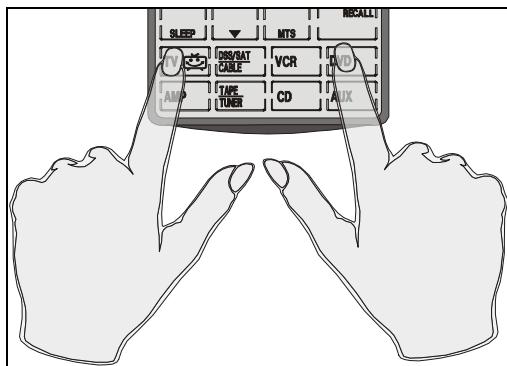
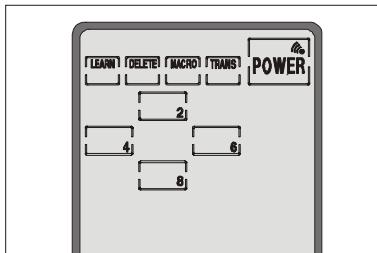


Figure 3-3: Recalling the original LCD panel configuration

You will hear two beeps and then see the password screen to the right.

Press each button until it disappears.



The **SUR-20 beeps six times and returns to normal view.** The original LCD panel configuration has been recalled.

Appendix A**Specifications**

Model	SUR-20
Battery	4 AAA alkaline batteries (not included)
Dimensions	7" (L) x 3.2" (W) x 1.1" (H)
Weight	7.7 oz. (with batteries)
Power saving	LCD turns off 20 minutes after last operation
Battery consumption	In use: 50mA Standby: 125µA LCD off: 25µA
Display	Touch liquid crystal display
Remote capability	8 remotes x 28 keys
Display types	TV, DSS/SAT/cable, VCR, DVD, AMP, tape/tuner, CD, AUX
Accessories	User's manual

Optional Accessories

An optional link cable to connect two SUR-20's is available. The cable enables you to transfer data between the SUR-20 units. To perform a data transfer you will use the TRANS special function button. Please see the manual which accompanies the cable when purchased. Link cable is available from Sima Corporation. **To order link cable contact:**

Sima Products Corp.
140 Pennsylvania Ave.
Bldg. # 5
Oakmont, PA 15139
or call 800-345-7462 412-828-3700 412-828-3775 FAX
or look up our website at www.simacorp.com

Troubleshooting

Appendix B

Troubleshooting

If you have trouble configuring or operating the SUR-20, first check that you have inserted the batteries correctly (page 4). Then check the items below.

Symptom	Remedy
The SUR-20 doesn't operate your device.	<ul style="list-style-type: none">• Batteries may be dead. Replace with fresh alkaline batteries.• Make sure that the desired device screen on the SUR-20 LCD panel has been selected.• Move closer to the device. The maximum operating distance is approximately 30 feet.• Ensure that you are aiming the SUR-20 directly at the device and that there are no obstructions between the SUR-20 and the device.• Ensure that programming the learning function (Chpt. 4) or the manufacturer codes (Chpt.5) has been properly done. Re-teach the button.
You cannot operate a device even after teaching the device using the learning function (Chpt. 4).	<ul style="list-style-type: none">• Make sure that you have correctly "taught" your device's remote control to the SUR-20.• Delete the device data from the SUR-20 (Chpt. 26) and carry out the learning function again (Chpt. 4).• Make sure you did not program more than one remote for a given device.
You see an "error" display during the learning procedure.	<ul style="list-style-type: none">• Make sure you did not program more than one remote for a given device.• Make sure the two remotes are not too far apart and are aiming directly at each other.
You see an "error" display during operation.	<ul style="list-style-type: none">• The button that you pressed has not been taught. Teach the button using the learning procedure (Chpt. 4).

Troubleshooting Guide (Cont.)

Macro does not work	<ul style="list-style-type: none">• Be sure to aim SUR-20 at devices while macro commands are being sent.• Macro was not properly set up. Repeat macro set-up procedure (Chpt. 7).
Record button does not work	<ul style="list-style-type: none">• Record button has a three-second safety delay to prevent accidental recording. Press and hold REC button for three seconds.
A button performs its function two or more times	<ul style="list-style-type: none">• Some remotes issue multiple commands when a button is held down. Re-teach the button being sure to release the button on your existing remote quickly when teaching the SUR-20.
The LCD screen turns off.	<ul style="list-style-type: none">• The SUR-20 is preset at the factory to automatically switch the LCD off after 20 minutes if left unused. Just tap the LCD screen to turn the SUR-20 back on again.

See our web site **www.simacorp.com** for more information. Or call Sima at 800-345-7462

Quick Start Guide

NOTE: In place of **device** key press the **TV**, **AMP**, **VCR**, etc... key

Function	Enter	Exit	Chpt.
Change LCD Layout and button functions	Press and hold device key for 3 sec. Press buttons to change functions.	Press device key	3
Teach Remote Control Codes to SUR-20	Hold LEARN key for 3 seconds. Push buttons on remote following cues from SUR-20.	Press LEARN key	4
Turn beep on or off	Press any device key twice		8
Adjust Backlight	Press and hold AMP and AUX keys for 3 seconds. POWER button will toggle between time delay and sensitivity adjustments.	Press any device key	8
Delete Codes	Hold DELETE key for 3 seconds	Press LEARN key	6
Delete code for just one key	Press appropriate key		
Delete code for one device	Press DELETE and then press device key	Press LEARN key	6
Delete code for all devices	Press and hold DELETE key for 3 seconds	Press LEARN key	6
Edit Macro	Press and hold MACRO key for 3 seconds. Select device screen. Select macro button. Enter commands.	Press LEARN key twice	7

90 Day Limited Warranty

Sima Products Corporation warrants this product against defects in materials and workmanship for a period of 90 days from the date of purchase. During the warranty period, the product will be repaired or replaced, at Sima's option.

Conditions

1. Ship your unit, freight prepaid, including reasonable proof of purchase and description of problem to: Sima Products, 140 Pennsylvania Ave., Bldg #5, Oakmont, PA 15139 (412) 828-3700
2. This warranty is void if any defects are caused by abuse, misuse, negligence or unauthorized repairs.
3. All liability for incidental or consequential damages is specifically excluded. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Notes

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A/V Selectors
Speaker Selectors

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Image Bank Digital Photo Storage
FilmShield
Tripods
Lens Pens
Cap Keepers

Video

Audio/Video Editors
Video Mixers
Battery Chargers
Rewinders

Power Accessories

12V Power Inverters

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